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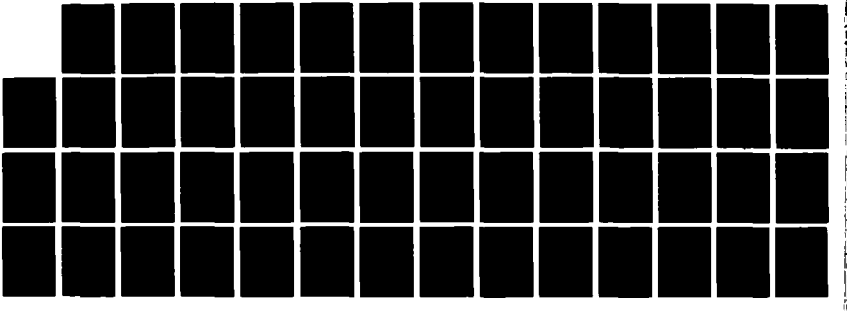

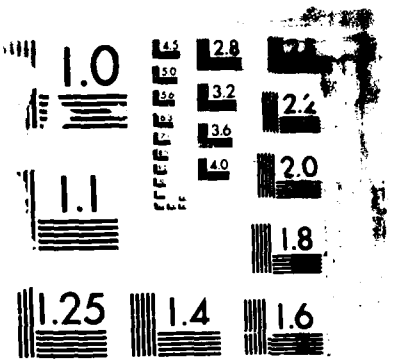
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EQUIPMENT, ORGANIZATION AND COMMAND AND CONTROL RELATIONSHIPS OF INTELLIGENCE AND ELECTRONIC WARFARE SUPPORT TO THE HEAVY DIVISION

by

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4 December 1986

Block 19 continued:

as they will fight.

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This study investigates whether the military intelligence battalion, organic to the U.S. Army of Excellence heavy division, is equipped, organized, and has the optimal command and control relationships to support in accordance with current doctrine. Intelligence and electronic warfare lessons are cited from World War II and the Vietnam conflict for use in the study. Doctrinal requirements from FM 34-1, Intelligence and Electronic Warfare Operations and the basic tenets of Airland Battle from FM 100-5, Operations are used to analyze the thesis question.

The study contends that the military intelligence battalion, with additional corps assets and doctrinal interfaces, is equipped to support a heavy division. However, the battalion is severely limited in its ability to sustain operations due to the current equipment authorization.

The study recommends that while the military intelligence battalions' current organization supports doctrine, there is an evolutionary need to consider organizing the companies

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ABSTRACT

EQUIPMENT, ORGANIZATION, AND COMMAND AND CONTROL RELATIONSHIPS OF INTELLIGENCE AND ELECTRONIC WARFARE SUPPORT TO THE HEAVY DIVISION, by Major Ronald L. Burgess, USA, 47 pages.

This study investigates whether the Military Intelligence Battalion, organic to the Army of Excellence Heavy Division, is equipped, organized, and has the optimal command and control relationships to support in accordance with current doctrine. Intelligence and Electronic Warfare lessons are cited from World War II and the Vietnam conflict for use in the study. Doctrinal requirements from FM 34-1, Intelligence and Electronic Warfare Operations and the basic tenets of AirLand Battle from FM 100-5, Operations are used to analyze the thesis question.

The study concludes that the Military Intelligence Battalion, with additional corps assets and doctrinal interfaces, is equipped to support a Heavy Division. However, the Battalion is severely limited in its' ability to sustain operations due to the current equipment authorizations.

The study concludes that while the Military Intelligence Battalion's current organization supports doctrine, there is an evolutionary need to consider organizing the companies as they will fight.

The study concludes that the current command and control relationships need to be doctrinally expanded to facilitate operations and sustainment. The study offers that the solution to these problems is to recognize doctrinally a requirement for "rules of engagement". In addition, an alternative command and control relationship and an expansion of the Standard Tactical Mission Responsibilities Matrix are offered as solutions to the conclusions reached by the study.

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I. INTRODUCTION

New technology and the advent of AirLand Battle (ALB) doctrine have caused the military intelligence community to reevaluate its ability to support current doctrine. If we are to wage the ALB successfully, predictive and real time intelligence must be available to the commander. Sun Tzu understood this over 2,000 years ago when he stated, "the reason the enlightened prince and the wise general conquer the enemy whenever they move and their achievements surpass those of ordinary men is foreknowledge....What is called 'foreknowledge' cannot be elicited from spirits, nor from gods, nor by analogy with past events, nor from calculations. It must be obtained from men who know the enemy situation."[1] He describes succinctly what the military intelligence battalion in the heavy division should do for the division commander.

"Warsaw Pact forces facing Allied Command Europe (ACE), which is the NATO military command which stretches from the northern tip of Norway to the eastern borders of Turkey, consist of about 167 active and mobilisable divisions plus the equivalent of 9 divisions of airborne, air assault, and air-mobile formations, which could be used in a number of different areas.... Land forces committed to NATO and stationed in or rapidly deployable to Europe, consist of the equivalent of some 88 active and mobilisable divisions (including three airborne/air mobile divisions), many of which are also ready to fight at very short notice."[2] Given our current military posture vis-

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[1] Sun Tzu, The Art Of War, trans. Samuel B. Griffith (New York, 1971), pp. 144-145.

[2] U.S. Government, Soviet Military Power (1985), p. 76.

a-vis the Soviets in a European scenario, intelligence organizations must provide accurate information in sufficient time to allow the division commander to reach a decision, prepare orders, and execute his plan. Napoleon once stated that God was on the side with the larger battalions. If the U.S. Army is to successfully wage ALB, then the intelligence organization at division level must maximize its ability to contribute as a combat multiplier.

Current ALB doctrine has not caused military C2 relationships and organizations to change appreciably. However, some new items of IEW equipment are being incorporated into the Heavy Division Military Intelligence Battalion. The purpose of this paper is to determine whether the current equipment, organization, and command and control (C2) relationships of the military intelligence battalion of the heavy division are optimal and whether the current MI battalion is prepared to meet the challenges of the modern, non-linear, fluid battlefield. A major question impacting on this study that will be addressed in the Analysis section of this paper will be whether the Army fully implemented IOSS regarding the current MI battalion, and if not, in which ways?

The paper will first look at lessons learned from the Vietnam War regarding intelligence support to tactical units. This review will serve as a start point primarily because the Vietnam conflict was the first in which U.S. divisions had organic intelligence assets. It was also the first conflict in which military intelligence, as a branch, had to come to grips with supporting the ground tactical commander.

Following the Vietnam War, the Chief of Staff of the Army directed that an Intelligence Organization and Stationing Study (IOSS) be undertaken to evaluate the U.S. Army's organization, doctrine, and C2 of intelligence organ-

izations. A review of this study and its recommendations will indicate whether Military Intelligence has chosen organizations, equipment, and C2 doctrine that best support the division. The emphasis of the review will be the Heavy Division.

The paper will then describe the current organization, equipment and C2 doctrine, with a support relationship discussion, as doctrine prescribes. Each of the areas will be analyzed in light of ALB and its implications to see if the current initiatives can accomplish what ALB requires of them. The paper will then focus on current and future initiatives which, if incorporated into current U.S. doctrine, could diminish any shortcomings.

Finally, conclusions will be drawn from an examination of current intelligence organization and equipment when compared with history and the requirements of ALB.

This paper makes the following assumption and limitations.

1) Assumption-Technological advances will continue and be available to the Army.

2) Limitations

a. The discussion will focus on:

1. ALB in a mid-to-high-intensity conflict.

2. Electronic Support Measures (ESM), Electronic Counter-measures (ECM) and long-range reconnaissance assets.

3. Unclassified material.

b. Delimitations:

1. Military intelligence support to Light Divisions, including Airborne and Air-Assault.

2. The adequacy and requirement for dedicated intelligence communications equipment.

c. The historical review is limited because neither a Military Intelligence Battalion nor a reasonable facsimile has deployed in support of an Army Division in a mid to high intensity conflict.

II. HISTORICAL REVIEW

"If there is a next war, a modern battlefield will include not only the customary three dimensions of depth, width, and airspace of previous wars, but an added dimension as well. The fourth dimension, the electromagnetic spectrum, is a mostly invisible medium which will saturate the entire battlefield upon which the use of all electromagnetic devices will depend."[3] This dimension will be the focus of the intelligence organization at division level.

Throughout the history of armed forces, commanders have sought ways to maximize their ability to gather intelligence. The U.S. Army has studied the subject in some detail as the facets of war have expanded to include Intelligence and Electronic Warfare (IEW). While the focus of this historical review will be the Vietnam War and after, a World War II exercise should be noted because of the role it would play in future IEW employment.

In 1943 a study was conducted during the Tennessee maneuvers by Bell Telephone Laboratories to determine whether the U.S. Army needed a Radio Signal Intelligence Battalion and, if so, what organization it should take.[4] The concept for the organization was validated and the findings concerning ECM

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[3] Don E. Gordon, "Army CEWI Battalions," Journal of Electronic Defense, Vol. 3, No. 1, Jan-Feb, 1980, p. 40.

[4] R. L. Robbins, "Activities of a Provisional Radio Signal Intelligence Battalion in the Tennessee Maneuvers" (report by Bell Telephone Laboratories for the National Defense Research Committee, 1943), p. 1.

were trenchant. It was determined that lower echelon front-line operational nets may be advantageously jammed at all times to prevent execution of orders while higher echelon nets should not be jammed at random because information gained from them by interception may be more valuable than the effects of jamming.[5]

While the above lesson concerning ESM and ECM was learned in WW II, the U.S. Army proceeded to learn other lessons concerning intelligence in Vietnam. A typical generalization for intelligence lessons learned in Vietnam is that the intelligence structure of the Army is cumbersome and unresponsive.[6] However, this comment is too broad and does not allow conclusive implications to be drawn that can be used to further develop an IEW system. The following primary observations and lesson learned are more specific and are taken from the official monograph on Vietnam in the Vietnam Studies series sanctioned by the Department of the Army discussing intelligence.

Observations:

1) "According to existing Army doctrine the intelligence force structure is tailored to the organization it supports and modified by considerations of the enemy, terrain, weather, mission, and scheme of operations."[7]

2) "Intelligence was provided from a variety of assets, however, on a very austere basis."[8]

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[5] Ibid., p. 3.

[6] James M. Coughlin, "Intelligence and Electronic Warfare (IEW) Support for the Corps" (unpublished paper for the Naval War College, 1984), p. 4.

[7] Major General Joseph A. McChristian, Vietnam Studies: The Role of Military Intelligence 1965-1967 (Department of the Army, Washington, 1974), p. 13.

[8] Ibid., p. 13.

Lesson learned: The primary principle of war violated was unity of command.[9] This was because of the nature of the insurgency and exemplified by the fact that all U.S. intelligence organizations were not centralized under General Westmoreland, which would have maximized their effectiveness.

The primary reason that these strategic lessons apply to this paper is that the organic unit that provides ECM and ESM support at division level was not present in Vietnam. While each division had a military intelligence detachment, it did not supply these types of support. Generally these detachments provided counterintelligence, imagery interpretation, interrogation and order of battle support to the division. A division may have had an Army Security Agency Division Support Company, which provided ECM and ESM support, but generally divisions deployed to Vietnam only with their normal military intelligence detachment.[10] Thus, the tactical organization at division level in the future would be designed based on strategic intelligence lessons learned and field expedient measures to accomplish the mission.

These comments require further examination. The first observation from the Vietnam War concerning the tailoring of the intelligence force structure remains valid. Current doctrine still requires the tailoring of assets in accordance with these parameters.[11] It is interesting to note that the 525 MI Group was formed to support the Commanding General, U.S. Army, Vietnam, with real-time intelligence. A question to be answered by this monograph is whether the current IEW organization at division level is structured to do this and whether it accomplishes this when it organizes for combat. The second observation concerning the austerity of assets is a little more

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[9] Ibid., p. 157.

[10] Ibid., p. 14.

[11] U.S. Army, FM 34-10, Division Intelligence and Electronic Warfare Operations (1986), p. 3-1.

difficult to validate. A review of the IEW equipment in the divisional MI battalion is a major part of this paper. Deciding how much equipment is enough has presented problems for the force structure community for a long time. However, as far as can be determined, no commander has ever complained of having too much IEW support. Therefore, as MG Thompson so aptly put it, "A question that the Army may ultimately have to answer is- How many CEWI units can we buy for the cost of a tank battalion and what will be the net increase in combat power?"[12] This question remains today.

A lesson learned from the Vietnam War in intelligence operations concerned unity of command. Unity of command is defined by the principle: "For every objective, ensure unity of effort under one responsible commander."[13] In intelligence operations at the tactical level it is best achieved by giving a single commander the authority to direct and coordinate all intelligence assets in pursuit of a common goal. Current doctrine recognizes this requirement when it states that assembling an accurate picture with intelligence requires centralized direction.[14]

During the Vietnam War the leadership began to realize that the tactical intelligence system would require some revising to make it more responsive to the needs of the commander. This requirement was promulgated by General William C. Westmoreland, Chief of Staff U.S. Army, on October 14, 1969, in an address to the Association of the U.S. Army when he stated:

> "Inherent in the function of destroying the enemy is fixing the enemy. In the past, we have devoted sizable portions of our forces to this requirement. In the future, however, fixing the enemy will become a problem in time rather than

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12 Major General Edmund R. Thompson, "ACSI Viewpoint: CEWI in the Active Army," Military Intelligence, Vol. 6, No. 4, (Oct-Dec 1980), 29.
13 U.S. Army, FM 100-5, Operations (1986), p. 175.
14 Ibid., p. 46.

> space. More specifically, if one knows continually the location of his enemy and has the capacity to mass fire instantly, he need not necessarily fix the enemy in one location with forces on the ground. On the battlefield of the future, enemy forces will be located, tracked and targeted almost instantaneously through the use of data links, computer assisted intelligence evaluation and automated fire control. With first round probabilities approaching certainty, and with surveillance devices that can continually track the enemy, the need for large forces will be less important."[15]

Following Vietnam the IOSS was conducted by Major General Ursano, director of management for the DA staff. The study was undertaken with two main objectives:

1) To look at the Army's total organization for the conduct of intelligence, including EW, where this is specifically related to intelligence functions.

2) To evaluate the missions, functions, organizations, command and management relationships, and stationing of intelligence organizations.[16]

For a time following the cutback in Vietnam, the division had been supported by organizations that were not organic, which may have caused problems in C2. This relationship was changed in June, 1975 as a result of the Tactical Reconnaissance and Surveillance - 1975 Study (TARS-75) and the tactical signal intelligence/electronic warfare (SIGINT/EW) concept which was approved by the Department of the Army. These studies gave the division commander an organic combat intelligence company and a direct support SIGINT/EW company. It was hoped that these would solve the IEW system problems experienced at the division level. However, IOSS took the

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[15] Paul Dickson, The Electronic Battlefield (Bloomington: Indiana University Press, 1976), p. 71.

[16] U.S. Army Intelligence Center and School, SIS 02607 Intelligence Organization and Stationing Study (IOSS) (1977), p. 2.

findings of these studies one step further in their responsiveness to the tactical commander.

The IOSS was completed and portions implemented in August, 1975 with the proposal and acceptance that tactical integration be achieved by the creation of new integrated organizations at corps and division.[17] Specifically, these units were a direct result of the recommendation made in Chapter 2, "Tactical Integration." The recommendation stated, "consolidate Army resources, primarily devoted to the collection and processing of intelligence and to the conduct of electronic warfare, in support of tactical commanders, at the corps and division level, into integrated organizations, assigned to and under the full command (less SIGINT OPCON) of the supported commander."[18] This recommendation had the objective of giving the divisional commander positive control of the IEW assets that support him on the battlefield in the form of his organic Combat and Electronic Warfare Intelligence (CEWI) Battalion. It is this organization that has taken shape as the U.S. Army has moved through the ROAD, Division 86 and now the Army of Excellence TO & Es.

III. Current IEW Organization, C2 Doctrine and Equipment of the Military Intelligence Battalion of the Heavy Division

The Military Intelligence Battalion of the Heavy Division provides organic IEW support for the division. The battalion consists of a Headquarters and Service Company (HSC), a Collection and Jamming Company (C & J), a Intelli-

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[17] Ibid., p. 2.

[18] Major General Edmund R. Thompson, "ACSI Viewpoint: CEWI in the Active Army," Military Intelligence, Vol. 6, No. 4, (Oct-Dec 1980), 29.

gence and Surveillance Company (I & S), a Electronic Warfare Company (EW) and a Long Range Surveillance Detachment (LRS) (see diagram 1).[19] The paper will concentrate on the assets found in the HSC, C & J Company, EW Company and the LRS Detachment, as these are the units where the ECM, ESM and long range surveillance assets are located.

The HSC provides C2 for elements of the battalion and the assets that manage IEW operations, aerial communications intercept, location and jamming support and technical analysis of EW operations. The C & J Company provides ground based, voice collection and jamming and line of bearing (LOB) support with a minimal capability to conduct analysis. The EW Company provides ground based collection and jamming support with a limited capability to conduct analysis. The LRS Detachment provides a HUMINT capability for extended cross FLOT operations or performs as a stay behind force.

IEW C2 relationships between intelligence organizations or between intelligence organizations and other arms are expressed as standard tactical missions by the MI commander while command relationships are designated for MI assets under an MI commander.

The standard tactical missions are Direct Support (DS), General Support (GS), Reinforcing (R) and General Support Reinforcing (GSR). See diagram 2 for a more detailed explanation of each.[20] Delineating a "normal" C2 relationship isn't advisable because it is totally situationally dependent based on the factors of METT-T. *FM 34-10, Division Intelligence and Electronic Warfare Operations* dated January, 1986 does not prescribe a normal

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19 U. S. Army, TO & E 34285L0 (October, 1986), p. I-4.

20 U.S. Army, FM 34-10, Division Intelligence and Electronic Warfare Operations (1986), p. 3-51.

relationship for either the divisional or the corps IEW assets. Doctrine does provide for corps to give additional IEW assets to the division if the mission analysis deems necessary. This will be covered in more detail later in this paper.

FM 34-1, Intelligence and Electronic Warfare Operations, dated January, 1986 discusses command relationships. This keystone manual states that it is a responsibility of the IEW commander to provide the requisite direction to subordinate units as they strive to accomplish the mission. However, it goes on to state that IEW commanders will command and control IEW assets assigned to support a maneuver force.[21] The normal command relationships are organic, assigned, attached and operational control. Again, doctrine does not prescribe a normal relationship.

The dichotomy between *FM 34-1* and *FM 34-10* concerning C2 relationships should be noted. MI units command and control MI units while MI units support maneuver units. This means that a maneuver commander cannot receive IEW assets with a command relationship. The puzzlement of this dichotomy will become apparent after an analysis of our present system.

Doctrine states that the division commander will use the products of the IEW system to plan and direct all phases of the ALB while his staff will ensure that the IEW system is integrated with the division combined arms operations. It goes on to state that the MI battalion commander will organize and task the elements of the MI battalion based upon mission requirements provided by the G2 and the G3.[22]

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21 U.S. Army, FM 34-1, Intelligence and Electronic Warfare Operations (1986), p. 6-1.

22 U.S. Army, FM 34-10, Division Intelligence and Electronic Warfare Operations (1986), p. 3-1.

The MI battalion will task organize its resources based on the following principles of employment:

1) Integrated Support. "IEW support is provided to each echelon and integrated with combined arms operations."[23] This support may respond directly or be provided indirectly.

2) Centralized control/decentralized execution. "Assets are positioned, allocated missions, and in the case of SIGINT and EW assets, provided supporting technical data by the MI battalion TOC."[24] Control is centralized to provide the most effective support while decentralized execution allows subordinate elements the maximum flexibility.

3) Direct dissemination to user. The information gathered can be transmitted in a near real time manner to any of the brigades, via the IEW Support Element or to the division via the MI battalion TOC.

4) Not in reserve. Due to the scarcity of assets, MI assets are always placed where they can contribute to the overall mission of the division.

Regardless of the standard tactical mission given to the ESM and ECM assets of the division, the MI battalion Technical Control and Analysis Element (TCAE) performs all technical tasking. This is necessary because of the requirement for the divisional assets to have a technical data base to execute their mission, information primarily provided by corps assets and national systems. This requirement for an "umbilical cord" drives all planning and execution for ECM and ESM assets within the division and assets that are supporting the division. Doctrinally the TCAE orchestrates the IEW system at division level by providing the technical control and tasking according to the SIGINT and EW priorities established by the MI battalion S3. The S3

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[23] Ibid., p. 3-42.

[24] Ibid.

establishes these priorities based on his battalion commander's guidance, his estimate of the situation and intent. The battalion commander provides this direction after receiving his mission from the division commander as articulated by the division G2 and G3.

It is necessary to review now the current capabilities of the IEW equipment found in the MI Battalion of the Heavy Division. Currently, under good conditions, organic ground resources can reach out twenty to thirty kilometers from their locations on the friendly side of the FLOT. Organic aerial resources are expected to reach out to forty kilometers; however, this depends entirely on the enemy ADA envelope. This envelope may prove to be very extensive in a mid-to high-intensity conflict. Our aerial assets' ability to see is directly related to their altitude in achieving line of sight (LOS) to the enemy's rear. A point that must be kept in mind when considering the ground and air assets of the MI battalion at division level is that generally there are only three of each type of ground and air assets and there is not currently a readily available operational readiness float available at either division level or higher. The doctrine for the organic long range surveillance detachment is currently being written and in a state of evolution, but the unit will be expected to provide current intelligence to a depth of fifty to seventy kilometers beyond the FLOT. See diagram 3 for a visual recapitulation of equipment capabilities.[25]

IV. Air Land Battle IEW Requirements and Corps IEW Support to Division

Before one can assess whether the MI battalion can support our heavy divisions in their current conduct of ALB doctrine, the requirements of doc-

[25] U.S. Army, ST 100-3, Battle Book (1986), p. 7-4.

trine for IEW need to be understood. Within this scope it is important to remember that a division performs major tactical operations for the corps and can conduct sustained battles and engagements.

Within ALB doctrine the division commander will fight in an area of operations, but will have an area of interest where he must identify and monitor enemy activities outside his area of operation which could affect his future operations. Areas of operation and interest must extend far enough forward of the FLOT to give the commander time to react to approaching enemy forces, to assess his options and to execute operations accordingly. At the operational and tactical levels "the best results are obtained when powerful blows are struck against critical units or areas whose loss will degrade the coherence of enemy operations in depth, and thus most rapidly and economically accomplish the mission."[26] The question to be answered here and which has the most impact on the IEW system at division level is---what is deep enough?

The formal genesis of ALB and its requirements can be traced to 25 March 1981. On this date TRADOC published *TRADOC Pam 525-5, Military Operations: Operational Concepts for the Airland Battle and Corps Operations-1986.* This document delineated in time the hours with which a division commander had to be concerned when attacking elements of the second echelon formations and the time he was required to see out in his far distant areas of interest.[27] The division commander was expected not only to deal with the enemy assault echelon, but also to attack enemy forces that

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[26] U.S. Army, FM 100-5, Operations (1986), p. 14.

[27] John L. Romjue, From Active Defense to AirLand Battle: The Development of Army Doctrine 1973-1982 (Fort Monroe, 1984), pp. 47-48.

were within twenty-four hours of the FLOT.[28] These would normally be second echelon regiments and the lead elements of the second echelon divisions. In addition, the division commander was expected to see out to seventy-two hours.[29] It is interesting to note that the draft manual *FM 34-10*, dated January, 1986, still fixes on this as a requirement for the current IEW system. This pamphlet went on to say that the purpose of Army divisions' having the capability to see second echelon assaulting regiments was to permit "effective, continuous interdiction."[30] General Donn Starry had set the stage for this concept in his article, "Extending the Battlefield" when he stated:

> "on the extended battlefield the division must create for its major subordinate echelons the time and space necessary for those echelons to defeat the enemy forces in contact before it becomes necessary to engage those not in contact. This is done by attacking deeper enemy echelons before they can affect the operations of subordinates."

General Starry's concept demonstrates his understanding of the need for an IEW system that could provide the requisite intelligence support for commanders so that missions could be met.[31] However, as the doctrine evolved it appears that the focus on deep operations in strict, finite terms of time and space diminished.

Currently deep operations within ALB calls for these operations to be conducted against "enemy forces not yet in contact" and "against specific enemy forces in depth that threaten his (the commander's) success."[32]

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[28] U.S. Army, TRADOC Pam 525-5, Military Operations: Operational Concepts for the Airland Battle and Corps Operations-1986 (1981), p. 8.

[29] Ibid.

[30] Ibid., p. 42.

[31] Ibid., p. 4.

[32] U.S. Army, FM 100-5, Operations (1986), p. 37. The added parentheses by this author are to elucidate upon the indefinite pronoun.

Whereas doctrine still recognizes the four dimensions of the battlefield: width, depth, airspace (height) and time; it appears the focus is no longer solely locked on depth. To be more specific, it would appear that doctrine writers and the TRADOC community have recognized that doctrine is a condensed expression of an army's approach to fighting and is not meant to tie the hands of the executors, as previous doctrine seems to have done.

A review of other manuals from the appropriate service schools and their implementation of the new *FM 100-5, Operations* dated May, 1986 is inconclusive. It is reasonable to assume that this is a result of the lead time required to publish new doctrinal literature. Generally, the current manuals still focus on depth in terms of hours that the division commander should be able to look out forward of the FLOT.

If ALB doctrine is to succeed, then the full spectrum of IEW support must be brought to bear on the critical targets as the division commander sees the battlefield. IEW support at division level must therefore emphasize rapid collection and reporting of intelligence to all users, target development using all-source analysis for present and future operations and jamming of enemy communications. The bulk of the IEW equipment at division level that will provide all of these capabilities to the division commander is found in the MI Battalion.

When examining what support the corps will provide the IEW system at division level, an irony becomes evident. The amount and type of support that a division will receive from corps assets is totally based on mission requirements. Just as the assets at division level are task organized to support the mission and requirements, so too are the corps IEW assets. These corps assets are used to provide additional coverage because of the

limited resources and ranges of the assets at division level.[33] IEW doctrine, according to *FM 34-10*, states that while the IEW assets at division cover the division's area of operation and area of influence,[34] the corps provides the coverage for the division's area of interest. However, the equipment that would be provided DS to the division has the same capabilities and limitations as the equipment organic to the division. Evidence has not been found in doctrine or historical example that leads to the premise that assets organic to the corps that would provide an additional range of coverage would ever be provided DS to the division.

The MI brigade at corps level has some of the same short range ESM and ECM assets as the division. These assets, because of range considerations, must locate within the division's forward area and will normally be assigned a DS mission to the division or a GS mission to the corps. It is also at this level that the longer ranged airborne ESM systems are found and a data link is available so that the division has near real time access to the information collected. Just as the division has organic long range HUMINT capability, the corps has the same and the division can expect to receive pertinent intelligence. It should be noted that corps has no organic ECM airborne assets that may be utilized by the division to provide extended range coverage, as is the case with the ESM assets. See diagram 4 for a representation of capabilities at corps level.[35]

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33 U.S. Army, FM 34-10, Division Intelligence and Electronic Warfare Operations (1986), p. 2-37.

34 While this term is no longer valid it still exists in TRADOC doctrinal publications and will be deleted as manuals are updated.

35 U.S. Army, ST 100-3, Battle Book (1986), p. 7-5.

Corps, besides providing additional ESM and ECM assets, is also the "main interface between the national intelligence system and tactical operations."[36] Division has no data link or other means of directly interfacing with this system. To fully tap the potential and resources of this system the division is totally reliant on the corps and its ability to traject the intelligence.

V. Analysis

Before addressing the thesis of this paper it is necessary to readdress an important question asked earlier. The history of the IEW structure at division level reveals that the fundamental factor that drove its assignment was the IOSS. The question that needs to be resolved is, did the Army implement IOSS and its findings as they pertain to this discussion?

The Army's answer to the objectives and recommendations of Chapter 2 of the IOSS was to propose Combat Electronic Warfare Intelligence (CEWI) units that would overcome any previous problems by aggregating all current intelligence assets under a single commander at specific levels.[37] Ft. Huachuca, the home of the service school for MI, stated that with CEWI "intelligence and EW (were) now organic and responsive to the supported commander."[38] The IEW community located at Ft. Huachuca felt that the MI battalion at division level met the requirements as outlined by Chapter 2 of the IOSS.

However, as pointed out earlier in this paper, this support was to be "under the full command (less SIGINT OPCON) of the supported commander."

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[36] U.S. Army, FM 34-10, Division Intelligence and Electronic Warfare Operations (1986), p. 2-37.

[37] U.S. Army Intelligence Center and School, SIS 02607 Intelligence Organization and Stationing Study (IOSS) (1977), p. 1.

[38] Ibid., p. 3.

The first question that should be looked at here is how does the term SIGINT relate to the parameters of this paper. In its simplest terms SIGINT is nothing more than tactical ESM. In other words SIGINT is ESM performed by units at corps level and below, generally to support the tactical maneuver plan. The second question to be answered then is: do the current MI battalion and its C2 relationships take this caveat from the IOSS into account? A review of the standard tactical mission responsibilities matrix (diagram 2) for IEW units does not address this nor is there any allusion to it in current literature. When a maneuver unit receives ESM support today in any of the standard tactical missions, it does not receive it less SIGINT OPCON.

One can only surmise why this caveat was included in the recommendation. Technically, all SIGINT/EW assets are ultimately under the tasking authority of the National Security Agency and this agency, through directives, has delegated the ability to utilize these assets down to the division level. However, another possibility is that the writers of the IOSS realized that with the scarcity of resources and the fact that these assets were part of an IEW system at division level and above; that this caveat would preclude direct tasking below division level. A review of the literature has not divulged why this caveat was incorporated or if it is significant. The use of the term and its potential and full impact on tactical operations would lead one to believe that it was not used in a casual manner by the authors of the IOSS.

Therefore, it appears that the Army has attempted to implement the IOSS in its IEW structure. The ramifications of the "less SIGINT OPCON" caveat may be minimal, but may impact on the conclusions of this paper.

In attempting to analyze the major question of this paper, it is necessary to establish valid criteria against which to measure. As the question in-

volves the IEW structure and its ability to support ALB, the consonance with the tenets of ALB-agility, initiative, depth and synchronization appear cogent. Comments regarding a specific tenet will in most cases apply to all tenets and apply equally; however, these elements will not be repeated.

"Agility is the ability of friendly forces to act faster than the enemy."[39] While the IEW system at division level must have agility, it is also one of the primary means by which a division commander maintains his. Agility will be looked at in terms of both the IEW system capabilities and their ability to support the division commander's ability to maintain his agility.

Flexibility of the IEW system at division level is based upon its basic structure, equipment and soldiers. For the IEW system to have the requisite agility it must have the proper organization and equipment to support current doctrine. Doctrine states that "formations at every level must be capable of shifting the main effort with minimum delay and with the least possible necessity for reconfiguration and coordination."[40] Currently the MI battalion will task-organize assets to create an IEW Company Team to support operations. While there is no standard mix of assets, as the structure is based on the factors of METT-T, diagram 5 provides a doctrinal example of the organization of this team.[41] For an IEW Company Team to be organized in accordance with current doctrine requires the integration of resources from three of the four companies in the MI battalion. In other words, to organize itself for combat, the IEW structure requires that elements of the MI battalion disorganize to reorganize.

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39 U.S. Army, FM 100-5, Operations (1986), p. 16.

40 Ibid.

41 U.S. Army, FM 34-10, Division Intelligence and Electronic Warfare Operations (1986), p. 3-55.

The current doctrinal C2 relationships provide flexibility by allowing the MI commander to set the terms of the requisite support in accordance with the division commander's guidance. The standard support relationships utilized by MI are not unlike the support relationships used by other combat support and combat service support arms.

The agility of the equipment appears to be adequate. Not only is the Army making a concerted effort to improve the mobility of the IEW equipment, but data down links from airborne systems and data links among ground systems is further improving the ability of IEW equipment to cue and react.

The agility of the IEW system at division level is totally dependent on the mission management and technical control exercised by the TCAE. It is this centralized management which most drives the concept that all ESM and ECM assets at division level are part of a total intelligence system.

The other key aspect of agility involves what the system provides to enhance the agility of the division commander. The division commander "must know the critical events as they occur and act to avoid enemy strengths and attack enemy vulnerabilities."[42] It follows that if a unit is able to stay ahead of the enemy in this fashion, then the enemy is forced constantly to react to friendly operations, thereby forcing him into reactive operations. While the IEW system may be able to respond quickly enough, however, the doctrine for IEW employment by the division may not. As alluded to earlier, the IEW system responds to two staff officers who articulate the desires of the division commander. In the case of IEW, the G3 directs ECM activities while the G2 directs the ESM activities of the division. If the system is performing optimally, then the harmonious synchronization

[42] U.S. Army, FM 100-5, Operations (1986), p. 16

of ECM and ESM is indisputable. However, friction being the precarious variable that it is, leads one to question the wisdom of dissecting a system. It is important to note that ECM assets are utilized in an ESM role when not performing their primary mission. Doesn't the principle of unity of command apply to the integration of combat support assets just as much as it does to the maneuvering of formations?

To improve further the agility of the division the corps assets must be considered. Any element that would be placed DS to a division would generally be composed of ground assets intended to help the division fill gaps in its own organic IEW coverage. Currently only the SIGINT system at corps level has a viable down data link to division to provide intelligence in the division's area of interest. With the myriad of IEW systems at corps level and the intelligence requirements of the division, the transmission of this intelligence from the corps to the division would not be real-time and may not approach near real-time. The shortcoming in communications capabilities for the MI battalion, both within the division and from corps assets, has been borne out in formal study. It was identified in the first operational test/evaluation of a CEWI Battalion by the TRADOC Combined Arms Test Activity in July, 1977.[43] This finding was reiterated in February, 1983 by the U.S. Army Intelligence Center and School when an Independent Evaluation Report was published on the 109th MI Battalion.[44] Even an attempt to automate the intelligence flow indicated a severe shortcoming in a test of the 9th Infantry Division by the Army Development and

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[43] TRADOC Combined Arms Test Activity, "Combat Electronic Warfare Intelligence (CEWI) Battalion (DIV)", Report FM 362, July, 1977, p. H-1.

[44] U.S. Army Intelligence Center and School, "FINAL Independent Evaluation Report (IER) for the 109th Military Intelligence Battalion (CEWI)", February, 1983, p. 8.

Employment Agency.[45] Can the division accept this from the IEW system? For the division to plan properly and to reduce the element of uncertainty for the division commander, the need for this intelligence far forward of the FLOT is paramount.

Initiative is defined as "setting or changing the terms of battle by action."[46] To capture and maintain the initiative, leaders and subordinates must take independent action, but remain within the intent of the commander. Our doctrine recognizes the importance of initiative and its impact on operations when it states:

> "In the chaos of battle, it is essential to decentralize decision authority to the lowest practical level because overcentralization slows action and leads to inertia."[47]

A review of the organization of the MI battalion recognizes the paramount importance of this tenet. IEW assets are very likely to be spread throughout a division's area of operations with the chain of command being represented solely by a radio link. The MI community recognizes this fact based on the system's attempt to man the individual systems with an NCO and the attempt to provide a very limited analytical capability. However, initiative is an elusive trait that must be fostered within an organization and by an organization. It is easier to foster this spirit when a unit trains and fights together. This bonding cultivates cohesion within a unit that lends itself to an exemplification of initiative. LTG (Retired) Walt Ulmer probably stated it best when he said that "we might also notice that the crucial interpersonal bonds and shared experiences which are the elements of

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[45] U.S. Army, Evaluation of the High Technology Motorized Division, December, 1984, p. 4-28.
[46] U.S. Army, FM 100-5, Operations (1986), p. 15.
[47] Ibid.

cohesive groups are by definition only possible within small formations. Probably company level is the maximum size."[48] Currently the units in the MI battalion are not organized to stay together when deploying to support elements within the division. At the present time these units have to disorganize to execute their missions. However, normal practice in the field is to provide an element that has formed a "habitual relationship" with a supported unit. It has been this author's experience that the benefits of the "habitual relationship", while improving the interaction of the different arms, do not outweigh the shortcomings presented by the tearing apart of a fixed organization.

The C2 relationships of the IEW system appear to be in consonance with the tenet of initiative. Doctrinally the intelligence community has long recognized the requirement for centralized management, but decentralized execution. The C2 relationships (diagram 2) recognize the requirement for this and allow the requisite initiative at all levels based on the selected tactical mission.

However, the capabilities of the equipment at division level may limit the ability of the division commander to demonstrate or retain his initiative. As diagram 3 shows graphically, the capabilities of the organic IEW assets at division will provide coverage out to forty kilometers beyond the FLOT. With the new long range surveillance detachment this coverage will increase to seventy kilometers. However, as stated, the division still has a doctrinal requirement to observe out to seventy-two hours. The question becomes- how is seventy-two hours translated into a distance factor from the FLOT? While this question could generate numerous different responses, depending on the type of force you are in contact with, it is enough for this paper to

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[48] Jon W. Blades, Rules For Leadership (Washington, 1986), p. XXIII.

state that in a mechanized environment seventy-two hours forward of the FLOT far exceeds the seventy kilometer organic capability of the division. It is evident that "the division cannot see or interdict electronically as deep as its area of influence extends. In fact, there is only limited division capability to see the enemy's second-echelon regiments, much less a farther distance."[49] Corps assets must fill the void if the IEW system is to play a major role in this tenet of ALB doctrine.

The total IEW system must contribute to the ability of any echelon to seize or retain the initiative. The IEW system plays a major role in providing the division commander with the means necessary to maintaining initiative. "Retaining the initiative over time requires thinking ahead, planning beyond the initial operation, and anticipating key events on the battlefield hours, days, and weeks ahead."[50] The IEW system is the focal point to bring this concept from ideal to reality. With corps having the doctrinal requirement to provide the division with intelligence in its area of interest and with division having the responsibility to see out to 72 hours, the evidence incates that this IEW system has its focal point at corps. The question that must be answered is whether a division commander can seize or retain the initiative if he is dependent on assets he does not control. History and experience would indicate that commanders in the past have been able to do this. However, a question that remains for the future is whether it is possible for a division commander to seize or retain the initiative given the presumed pace and intensity of future war. As the historical review indicated, it was not until the Vietnam War that U.S. Army divisions had

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[49] Charles W. Thomas, "Combat Intelligence for the Deep Attack," Military Review, Vol. LXIII, No. 4, April, 1983, p. 44.
[50] U.S. Army, FM 100-5, Operations (1986), p. 15.

organic IEW assets. History is replete with division commanders seizing and retaining the initiative when the IEW assets in these cases did not belong to them. Division commanders were a beneficiary of the intelligence product that came from non-organic assets.

Doctrine defines depth as "the extension of operations in space, time, and resources."[51] Probably no component of ALB doctrine has been more misinterpreted than this tenet. This term, while applying to operations forward of the FLOT, also applies to operations at and rear of the FLOT. Current MI doctrine and the How to Fight manual, *FM 100-5, Operations*, dated August, 1982, had a strong focus on the IEW system's ability to observe in time beyond the FLOT.[52] However, as discussed earlier, the matter of depth is not strictly a function of time and space, but a question more of which unit, not currently engaged, can affect your future course of action. The previous discussion in Section IV should suffice to explain this aspect of depth.

Nonetheless, the aspect of depth rear of the FLOT remains to be addressed. A review of the current literature reveals a lack of attention to this aspect of operations which, if addressed at all, receives only cursory treatment. Doctrine states that "IEW support to the division's rear operations is planned concurrently with intelligence operations supporting the divisions deep and close operations."[53] It goes on to say when discussing Electronic Warfare (EW) planning that the G3 "allocates EW resources to support the brigades and other combat elements in support of close operations. He also integrates EW with other fire and maneuver in the deep

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51 Ibid., p. 16.

52 U.S. Army, FM 100-5, Operations (1982), p. 6-2.

53 U.S. Army, FM 34-10, Division Intelligence and Electronic Warfare Operations (1986), p. 3-9.

battle."[54] The polestar of doctrine appears to assemble at those operations at the FLOT and forward of it.

To conduct properly the required IEW operations in support of operations in depth will require much from an already strained system. The capabilities of both the equipment and the C2 structure demonstrate an ability to support operations in depth. However, if the system is already stretched to support the close and deep operations of the division, then the IEW system may find itself in a position of having to "rob Peter to pay Paul" so that it can support rear operations. The last formal study conducted on an MI battalion, not including the light study, demonstrated this point. The evaluation on the 109th MI Battalion and its ability to support the division in its execution of its IEW mission stated:

> "The Battalion cannot simultaneously support all 3 maneuver brigades, provide GS IEW to the Division and support the CBAA (CAB) without degrading the overall support."[55]

If the IEW system is to support operations in depth with the current organization, then the coverage may have to be provided by the corps assets. The probability of a non linear battlefield is high and the requirement to maximize all assets, not only IEW, will be required . A requirement may exist for which there are currently no available assets.

Synchronization has been defined as "the arrangement of battlefield activities in time, space and purpose to produce maximum relative combat power at the decisive point."[56] Moreover, doctrine goes on to tell us that

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[54] Ibid., p. 4-29.

[55] U.S. Army, Evaluation of the High Technology Motorized Division, December, 1984, p. 4-27.

[56] U.S. Army, FM 100-5, Operations (1986), p. 17.

synchronization requires a total unity of effort throughout the force. If the IEW operations have been coordinated properly, then economy of force and therefore an achievement of tactical advantage are possible. This is particularly true if the IEW operation is used in conjunction with maneuver and fire support.

The IEW system has been given the goal of "disrupting or neutralizing 50% of the enemy's critical C2 systems."[57] Thus, the requirement to coordinate IEW operations at some level is required if this goal is to be met. As it stands now, ECM and ESM assets are placed in DS to maneuver brigades while other assets are placed GS to the division. However, these relationships can be affected by the ECM and ESM priorities listed in the division OPORD. These priorities for ECM and ESM assets may not be in concert with the concept of operations of the brigade commander who has DS assets. A commander, whether it be at brigade or division, cannot afford to compete for IEW assets. The central link to coordinate this effort exists at division level, but not below it.

The IEW organization has provided a mechanism to synchronize IEW assets at division level. The TCAE has this mission and is organized, equipped and has the doctrine to execute it. The C2 relationships currently listed in the standard tactical mission responsibilities matrix may not facilitate this synchronization, but that thought will be expanded at the conclusion of this section. The IEW equipment at division level and assets it may receive from corps have been engineered to facilitate the synchronization of their employment. All systems currently being fielded, and planned for have the ability automatically to respond to cueing instructions

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[57] U.S. Army, TRADOC Pam 525-5, Military Operations: Operational Concepts for the Airland Battle and Corps Operations-1986 (1981), p. 43.

received from other systems or the mission management cell. This is accomplished by automatic data-links between systems. These links allow the IEW system to optimize the synchronization of the IEW effort. However, friction is a constant visitor to all elements on the battlefield and even the best planned operations and engineered systems are susceptible to its effects.

The purpose of synchronization of IEW operations is to provide the combat multiplier that swings the balance of power at an opportune time in the battle. As doctrine states, "jamming should interrupt or disrupt the enemy's communications at decisive moments in the battle-when key information needs to be passed or new instructions are required."[58]

Earlier the paper discussed the puzzlement presented by the dichotomy between doctrinal manuals concerning C2 relationships. In one manual, *FM 34-1*, there is a rational discussion of command and support relationships while *FM 34-10* tends to ignore a discussion of command relationships. While an argument can be made that it is not possible to compare the different support relationships of the different arms because of their diverse inherent responsibilities, this does not prohibit a comparison and the argument will be commented on later. It is possible to examine the matrix for MI relationships using *FM 100-5* as a measure. When examining the matrix (diagram 2) for IEW support it was compared to two broad gauges found in the keystone manual. These are the Airland Battle Imperatives and the key sustainment functions.

The Airland Battle Imperatives prescribe key operating requirements and apply to all operations.[59] When comparing the matrix to the ten im-

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[58] U.S. Army, FM 100-5, Operations (1986), p. 54.
[59] Ibid., p.23.

peratives it was found that, where appropriate, the relationships formulated and articulated by the MI community were valid and applicable. It was felt that the following imperatives correlated to the matrix for this comparison:

-Ensure unity of effort.

-Anticipate events on the battlefield.

-Concentrate combat power against enemy vulnerabilities.

-Designate, sustain, and shift the main effort.

The matrix, through its inherent responsibilities, addressed these imperatives and gave doctrinal guidance to direct MI units in the accomplishment of the mission. This should add credence to the matrix's validity as the imperatives are "historically valid and fundamentally necessary for success on the modern battlefield."[60]

However, the matrix was then analyzed against the key sustainment functions found in *FM 100-5*. The rationale for doing this was the following quote and a growing appreciation for the importance of sustainment.

> "As the scale and complexity of warfare have increased, the importance of logistics in success in battle has likewise increased. An army's ability to marshal, transport and distribute large quantities of materiel and to maintain the men and equipment of large units can make the decisive difference between victory and defeat in high- or mid-intensity conflict."[61]

A review of the current TO & E for the Heavy Division MI Battalion reveals a serious inability of the MI battalion to fuel or fix itself, which are two of the key sustainment functions. The reason this stands out as such a glaring fault is because of the omission from the matrix of "logistic support provided by." A review of the inherent responsibilities matrices for the other

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60 Ibid.

61 Ibid., p. 59.

combat support branches reveals an interesting trend. The Field Artillery and the Air Defense Artillery matrices show no responsibility for logistics support, like MI, while the Engineer, Aviation and Chemical matrices do show a logistics responsibility.[62] It is not within the purview of this paper to discuss why branches have chosen certain inherent responsibilities or whether this drives a particular force structure. Suffice it to say that the various C2 relationships are flexible and that they provide for the effective application of the amount of command or support which is appropriate in a given situation. The point to be made reference the MI battalion is that if the supported unit does not have the responsibility to sustain the IEW assets operating in its area of operations, then the responsibility must remain with the parent organization. A specific review of the TO & E for the MI battalion reveals that it does not have the ability to fuel, fix, or recover its organic assets throughout the division's area of operations.[63] Possible solutions to this problem will be offered in the conclusions.

While reviewing the inherent responsibilities matrices for the different arms an ancillary concept presented itself which requires mention. Currently, throughout the Army, we optimally task organize available forces to support a particular operation. As it stands now, a brigade commander receiving his "slice" from the aforementioned arms receives his support with a variety of caveats. Is this really necessary or efficient?

Colonel Wass de Czege stated "a precise terminology and language are absolutely necessary for the accurate transmission of ideas....Sounds like a small matter, yet we wonder why we can't communicate between branches

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[62] U.S. Army, ST 100-3, Battle Book (1986), pp 2-7 thru 2-14.
[63] U.S. Army, TO & E 34285L0 (October, 1986), pp 9-13.

of the Army."[64] It is hard to fathom that the Army requires its leadership, doctrinally, to grasp and comprehend a particular branch's petulant approach to C2 when the same lexicon is utilized to mean different things. To fully understand and implement intent and concept, a rigorous use of the language is required.

VI. Conclusions

Initially, this paper set out to determine if the current equipment, organization and C2 relationships of the divisional military intelligence battalion of the heavy division were optimal to support ALB doctrine. History was reviewed and examined to determine what influence, if any, previous conflicts and studies had on IEW support to the division. Then, a review was conducted of the current IEW equipment, structure and C2 relationships, to include corps IEW support, and how these different factors interfaced with ALB doctrine to provide the basis for analysis with the requirements of ALB doctrine and its tenets. It is based on this analysis and the implications of ALB that several conclusions become evident.

The first aspect of the question that will be dealt with will be to decide if the MI battalion is equipped to support current doctrine. As the research and analysis indicates, the requirement at division level for "deep"operations is a relative term. The MI battalion has a good capability, with its mix of ESM and ECM assets, to see and read to a depth of 40 kilometers forward of the FLOT. However, a limited ability exists to see or interdict beyond the first-echelon regiments. This lack of coverage will have to be provided by the corps, but even it has no organic ECM airborne capability that can

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[64] Colonel Huba Wass de Czege, "Toward A Science And Art Of War" (unpublished paper, 1983), p. 5.

provide the required depth. The first conclusion is that currently the IEW system, with its corps interaction, is equipped to handle its doctrinal requirements to read the battlefield and provide the requisite intelligence to the division commander in both his area of influence and his area of interest, but the lack of an organic ECM asset that has the capability to reach out beyond 40 kilometers must be addressed by the force structure community.

A second conclusion regarding the equipping of the MI battalion concerns the number of systems available to the battalion. The MI battalion is currently authorized the following IEW equipment to support operations.[65]

Nomenclature	Authorized	Function
AN/TSQ-114	1	ESM
AN/TLQ-17A	3	ECM
AN/TRQ-32V	3	ESM
AN/TRQ-30(V)	3	ESM
AN/MSQ-103A	3	ESM
AN/MLQ-34	3	ECM

There are not enough systems authorized to support adequately a mid- to high-intensity scenario. As noted above the systems are generally fielded in groups of three to facilitate the support of the three maneuver brigades of a division and there is a weighting of assets to the ESM function. In addition, no evidence has been found of any stockpiling or reserve state of the art IEW equipment that can be used to replace the loss of IEW equipment due to

[65] U.S. Army, TO & E 34285L0 (October, 1986), pp. 9-13.

combat or other catastrophe.[66] The MI battalion needs to be able to lose equipment and still be able to accomplish the mission with minimal impact on its effectiveness. A possible solution to this shortfall has been addressed by the Maneuver Oriented Corps (MOC)-96 Study Group. The study recommended that the IEW community purchase non-developmental items (NDI) so that IEW equipment could be bought in quantity and be able to replace battle losses quickly through presence of a float.[67] If the battalion is going to support deep, close and rear operations, then assets must be increased.

The second aspect of the study dealt with whether the battalion is organized to support current doctrine. The conclusion, based on history and analysis, is that the unit is organized in a manner to support current doctrine. The force structure community has placed the right mix of personnel and capabilities in this unit to assist it in the accomplishment of its mission. A significant improvement towards this end, in support of current doctrine, was the placement of the Long Range Surveillance Detachment at division level. However, analysis suggests that the next logical step in the evolution of the MI battalion and a step that will further enhance its ability

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[66] This comment is based on two major sources. This author served as the FORSCOM Project Officer for the Army acceptance of the AN/MLQ-34 system and as such had direct interface with all members of the IEW community to include NICP representatives and DA. This fact was repeated on numerous occasions and was due primarily to the cost involved. I have confirmed this information recently with two interviews. My first interview was with LTC (P) Frank Oakley, a former MI battalion commander and now a student at the War College, on 10 October 1986. The second interview was with LTC (P) Pat Hughes, also a former MI battalion commander and a AOSF student at SAMS on 14 October 1986. Both individuals have extensive background with this question and recent experience.

[67] U.S. Army, "Maneuver Oriented Corps-1996" (unpublished paper from a study group at the National War College and the Industrial College of the Armed Forces, 1986), p. 32.

to support; would be to structure the battalion with its companies organized to operate in the forward areas with a minimum of disruption from task organizing to meet mission requirements. All the analysis and everything this author has read combine to convince that a unit must exist, train and operate together in order to fight together as a functional member of the combined arms team.

The third aspect of the study dealt with whether the MI community's present system of C2 relationships were optimal for IEW support for ALB. The conclusion is that this area is potentially the "Achilles' heel" of the IEW system. It is not possible to discuss this aspect of the study without considering the other two variables, equipment and organization.

The IEW structure at division appears, based on doctrine and analysis, to be part of an IEW system. The current equipment and organizational shortcomings previously discussed detract from the MI battalion's capability to provide the support required by the standard tactical missions matrix. This is especially true of a DS mission. No plausible way can be found, within the scope of the parameters presented in this paper, for an IEW unit to accomplish realistically this mission. In the DS mission the IEW element is to respond to the supported unit. This paper has already discussed the problems presented by the fact that ECM and ESM are under the staff purview of the G3 and G2, respectively. This is further complicated by the ECM and ESM priorities previously discussed. Further exacerbating this problem is the requirement for a decision to be made after a signal intercept of whether to jam, destroy or listen to the signal. The decision focal point would need to be whoever has a total picture of the division battle and can make the decision in real-time. Current doctrine recognizes this require-

ment when it states, "assembling an accurate picture of the battlefield requires centralized direction."[68] This paper in its analysis has shown that the IEW element operating DS to the brigade does not have this total picture. With the present system's limitations and operating under the premise that we have one IEW system at division level, it is proposed that a set of "rules of engagement" be listed for each operation. "Rules of engagement" would be used in the same manner as an SOP, but would be linked directly to a particular mission and its requirements. These rules would allow the operators to make the requisite decisions in a timely manner, which supports the MI tenet of decentralized execution. For example, as the historical review showed, lower level nets may be profitably jammed at all times to prevent the execution of orders.[69] If the operators were unsure or the signal fell outside their rules, then a decision could be made at the higher level.

This ability to provide DS support is further exacerbated by the sustainment discussion from the analysis section of this paper. Again, accepting the premise that there is one IEW system, and not wanting to change the current IEW structure, there is a less palatable option available to the MI community. The use of command relationships, rather than tactical missions would remedy the situation. It is proposed that a better relationship for an IEW element operating forward would be to place it in an "attached less OPCON" status to a maneuver unit. This relationship would not only more clearly define the true interaction of the IEW element to the maneuver unit, but would also solve the MI dilemma concerning the precise

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[68] U.S. Army, FM 100-5, Operations (1986), p. 46.

[69] Refer to footnote 5. My experience as an MI Battalion S-3 shows this to be true and an interview conducted with LTC Pat Hughes on 21 November 1986 concluded that this was still a most viable option. However, LTC Hughes went on to state that it was his personal opinion that these nets should be fired on as a "hard option".

terminology question. However, it is the experience and feeling of this author that this solution is unacceptable to the maneuver commanders because it would require them to provide support and not necessarily receive anything in return.

Earlier in the paper it was suggested that the puzzlement presented by the lack of the ability in the MI battalion to fuel, fix or recover its organic equipment could be solved, and there are three possibilities. These possibilities are credible and viable, within the present system, if the previously discussed solution is not considered feasible or because others may consider it outlandish. The first is to establish a command relationship of attached between the IEW asset and the supported unit, thus giving the requirement for sustainment to the supported unit. Second, add the inherent responsibility of "logistic support provided by" to the IEW matrix. The third solution would be to leave all C2 doctrine as it is, but fix the force structure of the MI battalion so that it can sustain itself. Option 2 assumes this to happen if the parent unit is listed with the responsibility.

The nature of the modern battlefield will require that all elements of the combined arms team operate together in a harmonious, efficient manner. The IEW system must play its role, not only as a combat multiplier, but also in insuring that the division commander is able to focus on the tenets of ALB-agility, initiative, depth and synchronization. He must be able to execute in all anticipated circumstances. As a major Soviet doctrinal treatise in *Scientific-Technical Progress and the Revolution in Military Affairs* states:

> "Surprise is achieved by:
> Confusing the enemy of one's intention. Keeping secret the overall purpose of the forthcoming actions and preparations for them. Rapid and concealed concentration and deployment of forces in the area under attack. The unexpected use of weapons, and particularly nuclear

> weapons. The use of tactical procedures and new weapons unknown to the enemy."[70]

The IEW system must not only predict the enemy's intentions and read his actions, but move decisively to interdict his ability to execute.

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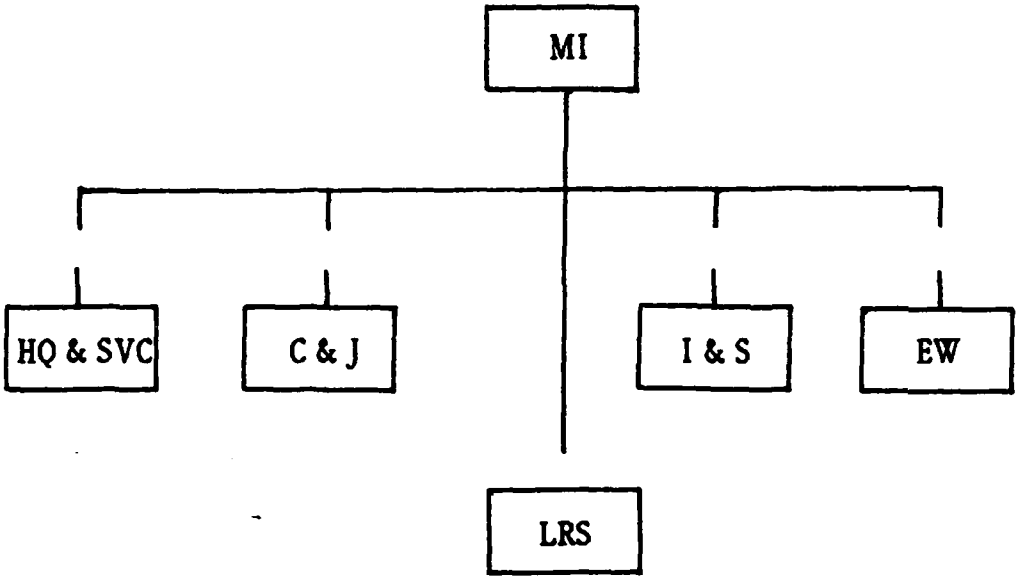
[70] Colonel William V. Kennedy, Intelligence Warfare, (Crescent Books, N.Y., 1983), p. 163.

LIST OF DIAGRAMS

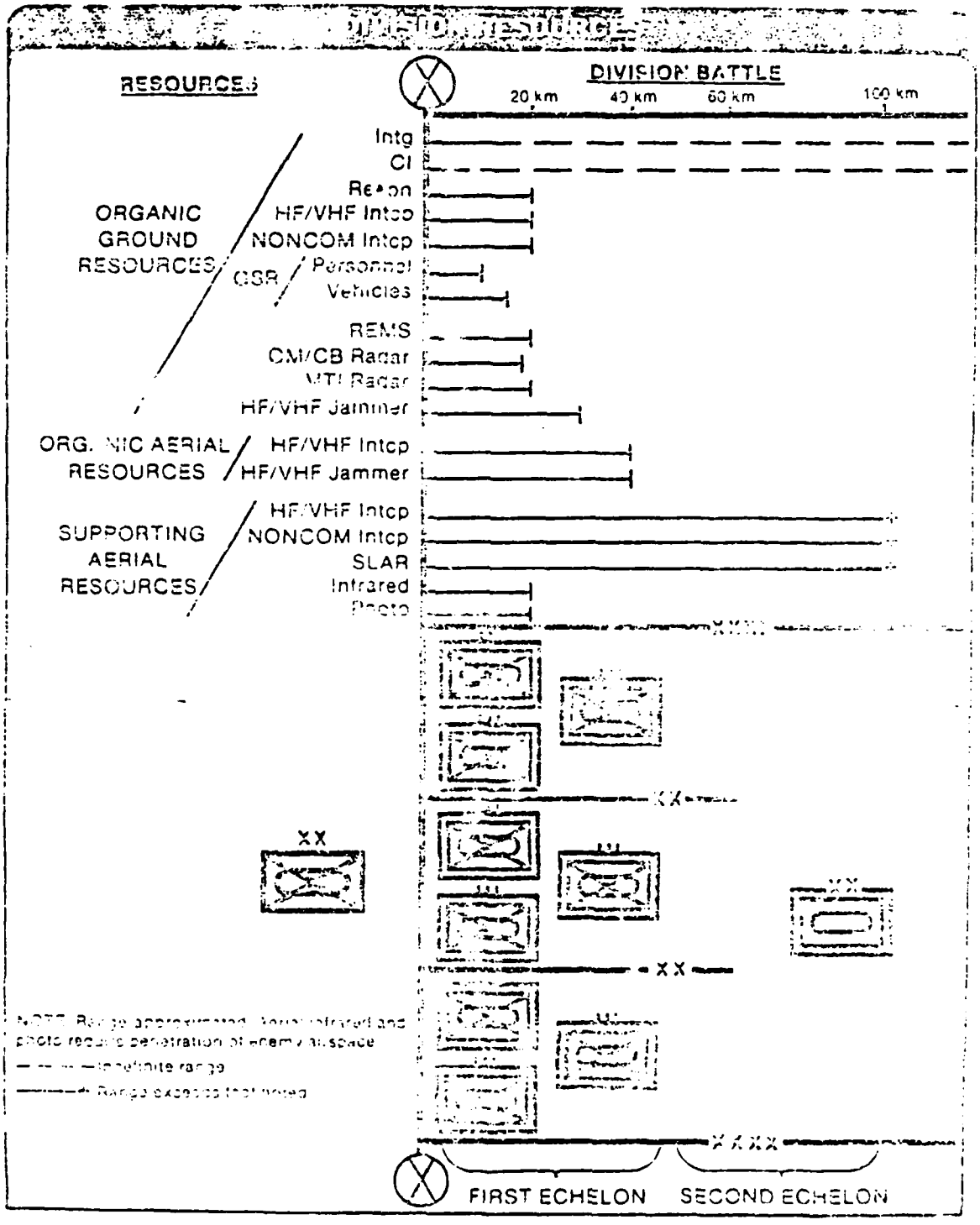
Diagram 1: MI Battalion (Heavy Division) Organization



STANDARD TACTICAL MISSION RESPONSIBILITIES MATRIX

An MI unit with mission of.... Responsibility	Direct Support	General Support	Reinforcing	General Support Reinforcing
a. Responds to request of	1. Supported Unit 2. Force as a whole	* Force as a whole	* Reinforced MI unit	1. Force as whole 2. Reinforced MI unit
b. Technical control	* MI bn TOC	* MI bn TOC	* Reinforced MI unit * MI bn TOC	* MI bn TOC * Reinforced MI unit
c. Zone of Action	* Supported units area of ops * Div area of ops	Div area of ops	* Same as reinforced MI unit	1. Div area ops 2. Same as supported unit
d. Furnishes IEW support element	* MI battalion provides an IEWTF to each maneuver brigade, regardless of what MI assets are in the brigade AO.			
e. Establishes communication with	* Supported unit * MI bn TOC	* MI bn TOC	* Reinforced MI unit	* Reinforced * MI bn TOC
f. Is positioned by	* MI unit cdr in coordination with supported unit	* MI bn TOC	* Reinforced MI unit or as ordered by MI bn TOC	* MI bn TOC o reinforced unit if or by MI bn
g. Tasked by	* Supported unit * MI bn TOC	* MI bn TOC	* Reinforced MI unit	* MI bn TOC * Reinforced MI unit

Diagram 3: Division Intel Equipment Capabilities



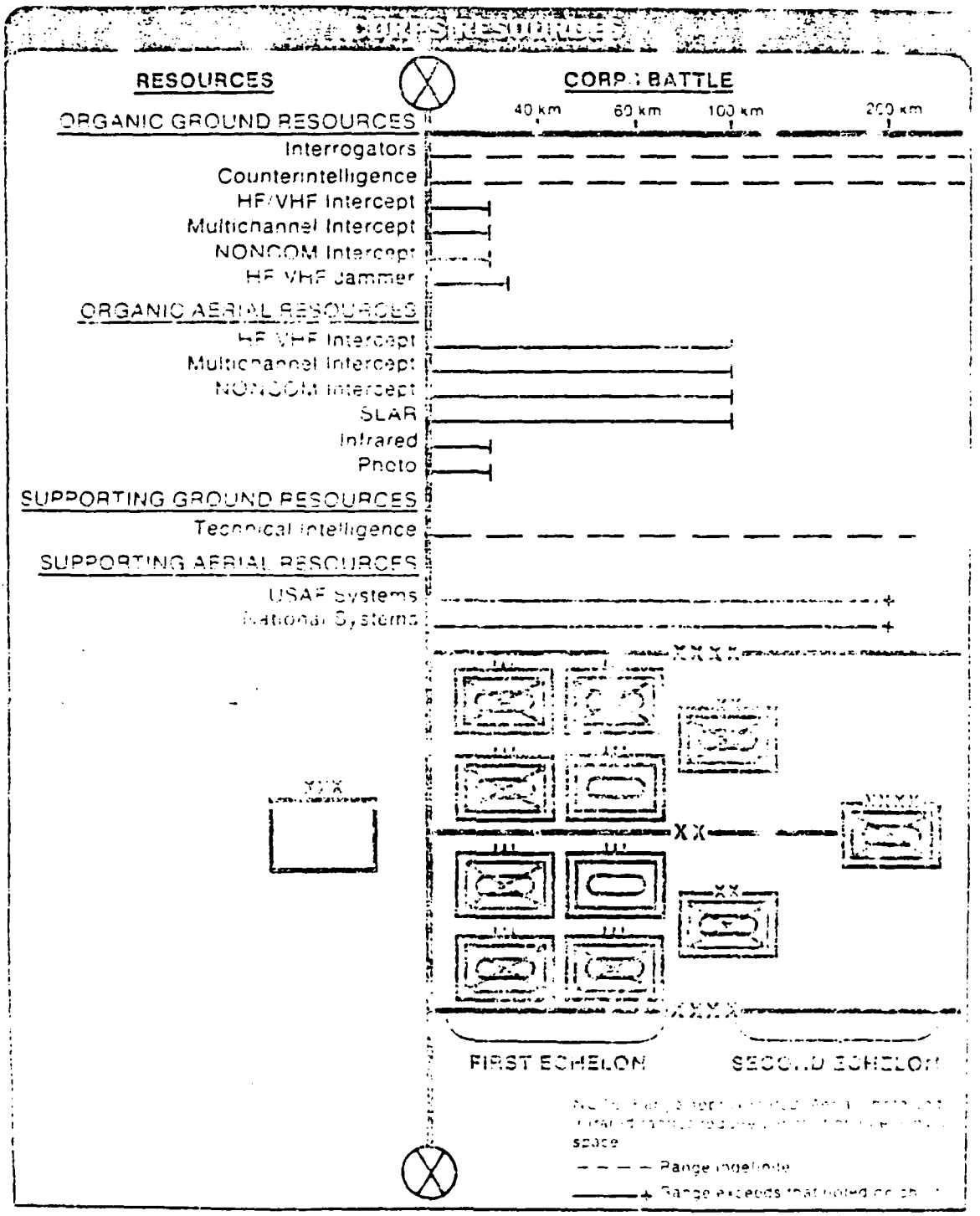
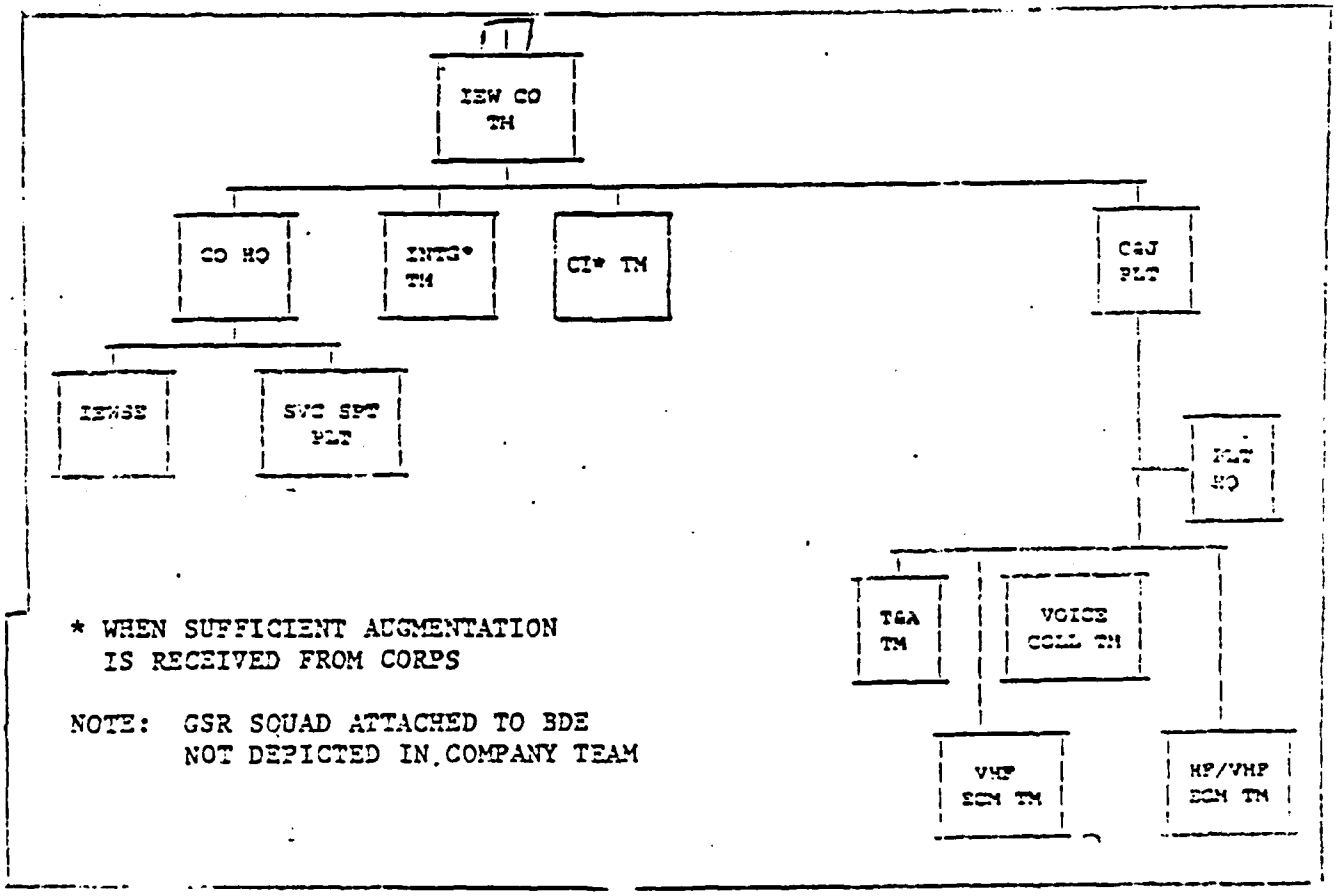


Diagram 5: Possible IEW Company Team Organization

IEW COMPANY TEAM (DIRECT SUPPORT)



* WHEN SUFFICIENT AUGMENTATION IS RECEIVED FROM CORPS

NOTE: GSR SQUAD ATTACHED TO BDE NOT DEPICTED IN COMPANY TEAM

Bibliography

Articles

Coughlin, James M. "Intelligence and Electronic Warfare (IEW) Support for the Corps." Unpublished paper for the Naval War College. Newport, R.I. 1984.

Czege, Colonel Huba Wass de. "Toward A Science And Art Of War." Unpublished paper. Fort Leavenworth, Ks. 1983.

Gordon, Don E. "Army CEWI Battalions," Journal of Electronic Defense, Vol. 3, No. 1 (Jan-Feb, 1980).

Robbins, R. L. "Activities of a Provisional Radio Signal Intelligence Battalion in the Tennessee Maneuvers." Report by Bell Telephone Laboratories for the National Defense Research Committee. New York, N.Y. 1943.

Thomas, Major Charles W. "Combat Intelligence for the Deep Attack," Military Review, Vol. LXIII, No. 4, (April, 1983).

Thompson, Major General Edmund R. "ACSI Viewpoint: CEWI in the Active Army," Military Intelligence, Vol. 6, No. 4, (October-December, 1980).

TRADOC Combined Arms Test Activity, "Combat Electronic Warfare Intelligence (CEWI) Battalion (DIV)." Test Report FM 362. Ft. Hood, Tx. 1977.

U.S. Army, "Evaluation of the High Technology Motorized Division." Report prepared by the Army Development and Employment Agency. Ft. Lewis, Wa. 1984.

U.S. Army, "Maneuver Oriented Corps-1996." Unpublished paper from a study group at the National War College and the Industrial College of the Armed Forces. Carlisle, Pa. 1986.

U.S. Army, "TO & E 34285L0." Military Intelligence Battalion Combat Electronic Warfare and Intelligence (CEWI) Heavy Division (Army of Excellence). Ft. Leavenworth, Ks. 1986.

U.S. Army Intelligence Center and School, "Independent Evaluation Report (IER) for Force Development Test and Experimentation (FDTE) of 109th Military Intelligence Battalion (CEWI). Ft. Huachuca, Az. 1982.

U.S. Army Intelligence Center and School, "Student Information Sheet 02607 Intelligence Organization and Stationing Study (IOSS). Ft. Huachuca, Az. 1977.

Books

Blades, Jon W. Rules For Leadership. Washington: National Defense University Press, 1986.

Dickson, Paul. The Electronic Battlefield. Bloomington: Macmillan, 1976.

Kennedy, Colonel William V. Intelligence Warfare. New York: Crescent Books, 1983.

McChristian, Major General Joseph A. The Role Of Military Intelligence 1965-1967. Washington: Department of the Army, 1974.

Romjue, John L. From Active Defense to Airland Battle: The Development of Army Doctrine 1973-1982. Fort Monroe: U.S. Army Training and Doctrine Command, 1984.

Tzu, Sun. The Art of War. Trans. by Samuel B. Griffith. New York: Oxford University Press, 1971.

Manuals

Field Manual 34-1 (Final Draft), Intelligence and Electronic Warfare Operations. Fort Huachuca, Az.: U.S. Army Intelligence Center and School, 1986.

Field Manual 34-10 (Final Draft), Division Intelligence and Electronic Warfare Operations. Fort Huachuca, Az.: U.S. Army Intelligence Center and School, 1986.

Field Manual 100-5, Operations. Washington, DC: HQ Department of the Army, 1982.

Field Manual 100-5, Operations. Washington, DC: HQ Department of the Army, 1986.

Student Text 100-3, Battle Book. Fort Leavenworth, Ks.: U.S. Army Command and General Staff College, 1986.

TRADOC Pamphlet 525-5, Military Operations: Operational Concepts for the AirLand Battle and Corps Operations-1986. Washington, DC: HQ Department of the Army, 1981.

U.S. Government, Soviet Military Power. Washington, DC, 1985.

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